

Gravity Balance Frame

Abstract : A building structure utilizes gravity load to balance lateral loads due to seismic or wind motions. The system is comprised of v-shaped tension-only braces located at the centers of heavily loaded girders. The gravity load upon the girders will tend to move upward and counter-balance any lateral movements of the structure. This upward movement, simulating the action of a roly-poly man toy, creates a non-collapse, ever-stable system regardless of how much the seismic or wind loads exceed the original design level.